

# NORTH SPRINGS IMPROVEMENT DISTRICT 2012



North Springs Improvement District is pleased to present this year's Annual Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.



#### **Overview**

In 2012 1.400 billion gallons of water was distributed to the customers of North Springs Improvement District. The water source for the District is the Biscayne Aquifer an underground geological formation. The Biscayne Aquifer has been a reliable source of high quality water since the early 1920's. Water from the Aquifer is withdrawn and pumped to the water treatment plant by 9 raw water wells located within the District. It is then treated by lime softening that removes 75% of the calcium, the main hardness producing component in ground water. The water is then filtered, disinfected with chlorine and ammonia for bacteria removal. Fluoride is added as an aid in preventing tooth decay.

#### **Source Water Assessment**

As part of the Federal Safe Drinking Water Act, the Florida Department of Environmental Protection (FDEP) performed a Source Water Assessment (SWA) on our system in 2012. The SWA results for North Springs Improvement District are available on the FDEP Source Water Assessment and Protection Program Website at www.dep.stste.fl.us/swapp

The EPA requires North Springs Improvement District and all water suppliers in the United States, to provide a summary report on laboratory tests taken on it's drinking water throughout the year. The 2012 Water Quality Table includes the most important information about your water. It shows the results of thousands of laboratory tests conducted on N.S.I.D. water system and what they mean. Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply, we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

**The sources** of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

**Contaminants** that may be present in source water include; A. Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife. B. Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming. C. Pesticides and herbicides, which may come from a variety of sources, such as agriculture, urban stormwater runoff and residential uses. D. Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems. E. Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the EPA (Environmental Protection Agency) prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791

#### ADDITIONAL HEALTH INFORMATION

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by viral and microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791). Water quality data for community water systems throughout the United States is available at <a href="https://www.waterdata.com">www.waterdata.com</a>

**N.S.I.D.** routinely monitors for contaminants in your drinking water according to Federal and State laws, rules, and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2012.

## **Terms & Abbreviations'**

#### **Key to Table**

AL = Action Level

MCL= Maximum Contaminant Level

MCLG= Maximum Contaminant Level Goal

pCi/L= picocuries per Liter

ppm = Parts per million

ppb = Parts per billion

ug/L= Micrograms per Liter

N/D = Not detected

RAA = Running Annual Average

MRDL= Maximum residual disinfectant level

MRDLG= Maximum residual disinfectant level goal

<u>Action Level:</u> The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

<u>pCi/L (Picocurie per liter):</u> A measure of the radioactivity in water.

MCLG: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum residual disinfectant level or MRDL: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum residual disinfectant level goal or MRDLG: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Parts per million: 1 part by weight of analyte to 1 million parts by weight of the water sample.

<u>Parts per billion or Micrograms per liter:</u> 1 part by weight of analyte to 1 billion parts by weight to water sample.

N/D: Means not detected and indicates that the substance was not found by laboratory analysis.

**Total Coliform:** The Total Coliform Rule requires water systems to meet a stricter limit for coliform bacteria. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public by newspaper, television or radio.

### MICROBIOLOGICAL CONTAMINANTS

Contaminant and Unit of Measurement	Sampling	MCL Viola- tion Y/N	Highest Monthly Percent- age	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria	Jan.12 / Dec.12	NO	2.3%	0	For systems collecting at least 40 samples per month: Presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment

## **Stage 1 Disinfection by product**

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Contaminant and Unit of Measurement	Dates of Sampling	Units	MCL Violation Y/N	RAA	Level Detected	MCL or MRDL	Likely Source of Contamination
Chlorine (ppm)	2012	mg/L	No	3.7	Range 2.8-3.9	4.0	Water additive used for disinfection
Haloacetic Acids (HAA5)	2012	Ug/L	No	N/A	17.21	60	By-Product of drinking water disinfection
TTHM (Total trihalomethanes)	2012	Ug/L	No	N/A	9.07	80	By-Product of drinking water disinfection

North Springs Improvement District has qualified for reduced monitoring of Haloacetic Acids and Trihalomethanes during 2012. one sample was collected and analyzed.

INORGANIC CONTAMINANTS							
Contami- nant	Date Tested	Units	MCL	MCLG	Analysis Result	Major Sources	Violations
Fluoride	2012	mg/L	4.0	4.0	0.23	Erosion of Natural deposits /	No
Sodium	2012	mg/L	160.0	N/A	32.2	Salt water intrusion, leaching from soil	No
Barium	2012	mg/l	2.0	2.0	0.0062	Erosion of Natural deposits	No

#### LEAD and COPPER (TAP WATER)

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Contaminant and Unit of Measure- ment	Dates of Sampling (mo./yr.)	AL Viola- tion Y/N	90th Percentile Result	No. of sam- pling sites exceeding	MCLG	AL (action level)	Likely Source of Contamination
Copper (Tap water) mg/L	6/2012	No	0.0865	0	1.3	1.3	Corrosion of household plumbing Decay of natural and man made deposits
Lead (Tap water) ppb	6/2012	No	3.5	0	0	15	Corrosion of household plumbing Decay of natural and man made deposits

For lead and copper; 30 samples were collected randomly from the water distribution system. Results are reported as the 90th percentile value of the most recent round of sampling.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. N.S.I.D. is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.



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# North Springs Improvement District Service Area Map

This report was prepared with Florida Rural Water Association and The Department of Environmental Protection template for Consumer Confidence Reports. If you have any questions about the quality of our water, you may contact the water treatment plant at (954) 752-0400, or E-mail Rodc@nsidfl.gov Visit us on the web at www.nsidfl.gov This report was

